

Cerebral Palsy As A Biological Significance

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Cerebral Palsy is one of the most common physical disabilities facing infants, young children, and adults alike. Cerebral Palsy is an umbrella for many disabling factors with two common threads that tie them together. The first is brain damage must be present and its onset is within the first three years of life. In this paper I plan I telling you a whole lot more about Cerebral Palsy and most importantly its biological impact on persons with the disability. First I will explain what Cerebral Palsy is then how it is treated and finally how all of these things affect the person(s) with the disability.

Cerebral Palsy is an umbrella like term used to describe a grouping of chronic disorders impairing motor skills and developmental delays usually in the first three years of life. The condition as a rule does not worsen over time nor does its severity worsen of time. The term cerebral refers to brain and palsy describes any disorder that impairs control of body movement. (Cerebral Palsy: Hope through research) Cerebral Palsy is not contagious nor is it inherited from one generation to the next. There is no cure for Cerebral Palsy at this time, yet scientific research continues to yield improvements in treatment of people that have Cerebral Palsy along with prevention techniques.

There are four major forms of Cerebral Palsy all with their own unique characteristics and general complications. There is Spastic, Athetoid, Ataxic, and Mixed. With all four major forms of Cerebral Palsy the severity varies for every individual case and not all difficulties of the particular type apply to every specific case underneath the specific category. Also after the four categories of Cerebral Palsy there can be a descriptor of side affected and/or the limbs affected.

Spastic Cerebral Palsy is the form that affects 70%-80% of all people that have Cerebral Palsy. With this form of the disability muscles are stiffly and permanently contracted.

Uncontrolled, and often slow jerking motions characterize Athetoid or dyskinetic Cerebral Palsy. These abnormal movements may affect the hands, feet, arms, and legs and in rare instances the face and tongue. This form of Cerebral Palsy generally affects 10%-20% of the total patients.

Ataxic Cerebral Palsy (CP) is most rare accounting for only about 5% of all total cases of CP. This form affects the sense of balance and depth perception. Affected persons often walk very unsteadily with an unusually wide gate. They may also face extreme difficulty when attempting quick or precise movements like writing or putting on clothing. Mixed CP is simply a combination of two or all three of the aforementioned types of CP.

Now that I have discussed the types of CP I am going to describe universal symptoms of CP as well as some of the complications. Some of these things in and of themselves can be considered medical disorders. As with the types not all symptoms of true to every instance of CP.

One of the most common complications of Cerebral Palsy is mental impairment. Approximately one-third of the cases of CP are mildly intellectually impaired while another one-third of CP cases are mildly or severely impaired. The remaining cases are normal. (Cerebral Palsy: Hope through Research.)

Epilepsy or seizures are known to occur in up to half of the cases of CP. It only comes to reason that with brain damage that seizures are a possibility. The

seizures are basically caused from uncontrolled electrical impulses throughout the brain.

Growth problems otherwise known, as failure to thrive is very common in moderate to severe cases of Cerebral Palsy. This characteristic describes children who lag behind in growth and development despite adequate nutrition. This tends to be the reason person with Cerebral Palsy reaching even my height (5'9") is highly irregular.

Hearing impairments as well as visual impairments are often present as well. These hindrances are just more common in persons with CP than the general population. The severity again depends on the individual cases.

Lastly persons with Cerebral Palsy tend to have abnormal sensation or perception of sensation. Some people with Cerebral Palsy may have a hard time feeling light sensations of touch or have a distorted sense of pain.

Now that you know what CP is and some of the hardship and medical conditions associated with it you should know what actually causes Cerebral Palsy. There was once thought to be only one cause of CP and that was a lack of oxygen to the brain during birth, however, with advances in the research of Cerebral Palsy that was found to be false. Since the number of cases of Cerebral Palsy are actually on the rise in the last 20 years doctors have come to blame one basic factor for the rise in numbers, basically technology available now that wasn't previously available is saving babies that would have ordinarily died. There are several things that can cause CP. I will discuss the four main leading causes known today.

Infections during pregnancy are one of the leading causes of Cerebral Palsy. German measles and rubella are the two most common infections spread from the mother to the fetus and these two attack the developing nervous system.

Jaundice in infants is another leading cause of Cerebral Palsy. Bile pigments that are normally found in small amounts in the bloodstream are produced when blood cells are destroyed. The yellow pigments can build up and cause jaundice and untreated jaundice can destroy brain cells.

Rh incomparability where the mothers blood cells produces antibodies that destroy the fetus's blood cells causing a form of jaundice.

Severe oxygen shortage or head trauma during birth. With oxygen levels too low for the infant brain damage occurs causing Cerebral Palsy. Also thrown in here are fetal strokes while still in the womb.

Now you may find yourself asking what would cause these things, which brings me to my next section on the risk factors of CP. Though very numerous they are mainly things that can be prevented by prenatal care and some common sense for the most part.

Breech babies have a higher risk of having Cerebral Palsy than those who are born headfirst. Also in here complicated delivery. Vascular or respiratory problems may be a sign of brain damage or that the brain didn't develop normally.

Low birth weight and premature birth are huge risk factors. Risk goes up for infants that weight 5 lbs 7 oz and lower. The lower the weight the higher the risk. Also babies born at 37 weeks and before are at risk of having Cerebral Palsy.

Multiple births such as twins, triplets and other instances of more than one baby being born at the same time increases the risk of Cerebral Palsy. The more fetuses the higher the risk for CP.

A mother that is younger than 18 and older than 40 also run a somewhat higher risk of having a child born with CP. This likelihood increases with tobacco and alcohol use as well.

Now on to how Cerebral Palsy is cared for and even treated. Since Cerebral Palsy can't be cured it needs to be managed as best as possible. Treatments for children and adults with CP are case specific and involve a list of professionals that aid in the development and care of the individual. Among the most common used are a general physician, orthopedic surgeon, social worker, and sometime a psychologist or psychiatrist to deal with emotional development. This group of people often implement therapy of a wide range of ideas and goals but must work together to give the individual the best chance at a normal life as possible. Also know that most treatment is aimed at making the patient more comfortable as well as more successful.

Therapy whether it is physical (usually the least favorite among CP patients), occupational, or speech is a corner stone to the treatment of CP. Therapy should be tailored to meet the growing and changing needs of the child as he progresses into adulthood.

Physical therapy is by far the most extensive therapy a CP patient must deal with he generally never graduates the need for at least moderate therapy even if it is just stretching. Physical therapy is used among other things to prevent contracture

or the lengthening of bones faster than the muscle can grow and stretch to compensate. This could cause the loss of abilities the patient once had.

Medications are also used to treat Cerebral Palsy. The most common types of medication used in the treatment of Cerebral Palsy are seizure medication as well as muscle relaxers for spasticity. Bracing the affected limbs for added support and structure is also one of the most common treatments for persons with Cerebral Palsy.

Surgery is also often a real solution for those with CP especially if the contracture is bad enough the muscle(s) affected can be lengthened.

The third part of this essay almost takes care of itself. Cerebral Palsy affects a person biologically in so many ways. People with Cerebral Palsy have damage done to many of the systems to their body particularly the immune system and nervous system. Some nerves don't work enough and other work too well. Some of the people with CP as mentally retarded as well some require 24hr care. At the very least their skeletal system is a little malformed and as a result they tend to live a somewhat painful existence and face challenges not faced in the average person's life.

In conclusion Cerebral Palsy is one of the most common disabilities in our youth today. There is no cure for Cerebral Palsy but it can be treated and cared for by a staff of professionally trained individuals. Lastly Cerebral Palsy has huge biological significance to those who have it, they must learn to cope with weakened immune systems and often-wobbly legs at least.

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